

Patent Abstracts of Japan

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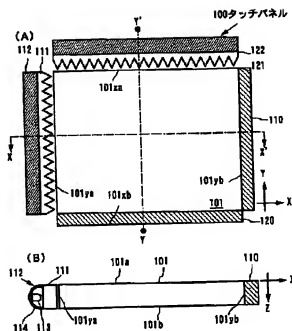
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APPLICANT : SEMICONDUCTOR ENERGY LAB CO LTD;

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TITLE : TOUCH PANEL, DISPLAY DEVICE  
EQUIPPED WITH TOUCH PANEL, AND  
ELECTRONIC EQUIPMENT EQUIPPED  
WITH DISPLAY DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To accurately detect an input position by a touch panel which uses an optical sensor with simple constitution having high mechanical strength.

SOLUTION: Illumination lights emitted by lighting means 112 and 122 are made into lights having high directivity to the X-axial and Y-axial direction of prism lens sheets 111 and 121 and then made incident on flanks 101ya and 101xa of a light guide plate 101. The incident light while totally reflected in the light guide plate 101 travel to the opposite flanks 101yb and 101xb and are received by optical sensor arrays 110 and 120. When the top surface of the light guide plate 101 is touched by an input pen or finger tip, the lights are refracted or absorbed at the touch position, so the optical sensor arrays decrease in photodetection quantity.

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